

Remarks

Since the final office action raises a new issue, that Press (US 3,626,365) anticipates claims 1,6,11-14 and 20, the applicant hopes that he will be allowed to respond to this issue.

Press does not use normal traffic sounds. Press teaches that his signal receivers "should, so far as reasonably possible, be insensitive to normal ambient sound naturally occurring in the vicinity of traffic, but should be able reasonably well to pick up the signals which are likely to be of a warning nature, such as the sound of a motor vehicle horn, or of a siren." (col. 3 ln. 42-51) Press teaches how to use directional microphones to detect and estimate direction only of safety signals such as sirens and horns (col.3 ln.60-68).

Press does not anticipate claim 1 because he does not reproduce normal traffic sounds inside the vehicle. Press processes his information such that if volume, frequency, and duration criteria are met, then a warning is presented to the driver. The audible output described by Press is a warning signal to accompany his primary visual warning display that indicates the presence of external safety signals such as vehicle horns or sirens (col.7 ln.8-13). Because of the different use of directional microphones compared with Press, the applicant's invention shows a novel structure by Section 102.

Press does not anticipate claim 1 because he has a different function. Press is concerned only with warning the driver of safety signals such as horns or sirens. The present invention presents normal ambient traffic sounds to the driver to keep him alert to nearby traffic. The components used by Press are much different than the components of the present invention because of the different usage. The different functions of Press and the applicant's invention show that the applicant is novel over Press by Section 102.

Press has a much different problem regarding microphone directionality. Because Press can use the high frequencies of safety signals, and wishes to ignore normal traffic sounds, he can easily make small microphones that are sufficiently directional. The applicant's invention teaches how to use small directional microphones that are only directional for higher frequencies, but to

use the directional information that is available from the small microphones to process the entire frequency spectrum of normal traffic sounds such that the driver is not annoyed by the traffic sounds that originate from his own vehicle. Because using directional microphones for traffic sounds with important low-frequency components is necessary for the applicant's invention, and more difficult than the use of directional microphones by Press, the applicant's use of directional microphones is new, unexpected and unobvious, and is novel by the standard of Section 103.

Claim 1 is amended to emphasize the unique use of directional microphones. This invention's use of directional microphones that are of a size that can be reasonably placed on a vehicle, combined with complementary signal processing, is unique to this invention. Claim 1 is amended to emphasize the importance of this novel combination of directional microphones and signal processing to provide the driver with reproductions of sounds from nearby traffic without annoying the driver with noise from his vehicle.

Press does not anticipate claims 6, 11, 12, 13, and 14 because Press does not anticipate claim 1.

Press does not anticipate claim 20 because Press does not use ordinary traffic sounds produced by nearby vehicles. Press is concerned only with warning a driver about safety signals such as horns or sirens. Press does not help to make drivers aware of nearby vehicles unless they honk their horn or have a sounding siren. Because the applicant's invention uses directional microphones for a different function than Press, by Section 102, claim 20 is not anticipated by Press. Since the use of small directional microphones for sounds with important low-frequency signals is new, unexpected, and unobvious, claim 20 is patentable over Press by Section 103.

Claims 2, 3, 4, 5, 9, 10, 15, 16, 17 and 18 were rejected based on Press combined with other prior art. Since Press does not anticipate the base concept of applicant's patent, as described in remarks about claim 1, Press combined with other prior arts, which alone do not anticipate the invention disclosed in claim 1, does not anticipate claims 2, 3, 4, 5, 9, 10, 15, 16, 17, and 18.

Claim 16, what was rejected under 35 U.S.C. 112, is amended to remove the indefiniteness that caused the rejection.

Neither Humphries (US 5,917,920) nor Carter (US 2002/0150262 A1) anticipate applicant's invention. Neither Humphries nor Carter teach how to help a driver monitor his traffic situation by reproducing sounds, which originate from nearby vehicles, inside a vehicle, and to avoid annoying the driver with added noise by use of directional microphones.

Applicant respectfully requests that a timely Notice of Allowance be issued in this case.

Submitted by



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Date: OCTOBER 15, 2007

Inventor's Signature: 